

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Yoshiyuki HASHIMOTO et al.

Attn: PCT Branch

Application No. New U.S. National Phase of PCT/JP2004/018968

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Docket No.: 128468

For: VEHICLE INTEGRATED CONTROL SYSTEM

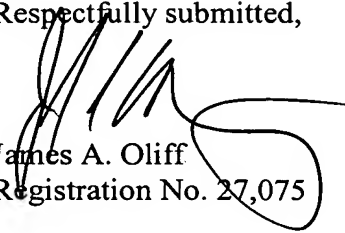
**TRANSMITTAL OF THE ANNEXES TO THE  
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

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Sir:

Attached hereto are the annexes to the International Preliminary Report on Patentability (Form PCT/IPEA/409). The attached material replaces the claims in their entirety from page 33 to page 36.

Respectfully submitted,

  
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## CLAIMS

1. (Amended) An integrated control system for vehicle control, comprising at least three subsystems (PT, ECB, STR) operating autonomously and in parallel, dispensable of a hierarchical system for a level higher than said subsystem, wherein said subsystem (PT, ECB, STR) comprises
- a sensing unit for sensing information related to an operation request with respect to at least one of said subsystems (PT, ECB, STR),
  - a connection unit for connection with another subsystem other than its own subsystem, and
  - a generation unit for generating information related to an individual control target of its own subsystem based on said sensed information related to an operation request.
2. The vehicle integrated control system according to claim 1, wherein said generation unit includes an arbitration unit for arbitrating a plurality of information to generate information related to an individual control target of its own subsystem, based on said sensed information related to an operation request.
3. (Amended) An integrated control system for vehicle control, comprising at least three subsystems (PT, ECB, STR) operating autonomously and in parallel, dispensable of a hierarchical system for a level higher than said subsystem, wherein said subsystem (PT, ECB, STR) comprises
- a sensing unit for sensing information related to an operation request with respect to at least one of said subsystems (PT, ECB, STR),
  - a connection unit for connection with another system other than its own subsystem, and
  - an arbitration unit for arbitrating a plurality of information to generate

information related to an individual control target of its own subsystem, based on said sensed information related to an operation request,

said arbitration unit in said subsystem being connected between each of said subsystem, and

when arbitration information arbitrated at each said subsystem is transmitted to the arbitration unit of another subsystem, control is executed at said another subsystem based on said transmitted arbitration information.

4. The vehicle integrated control system according to claim 2 or 3, wherein said arbitration unit determines priority of information.

5. The vehicle integrated control system according to claim 2 or 3, wherein said arbitration unit corrects information.

6. The vehicle integrated control system according to claim 2 or 3, wherein said arbitration unit processes information.

7. The vehicle integrated control system according to any of claims 1-3, wherein said subsystem comprises a driving system control subsystem (PT), a brake system control subsystem (ECB), and a steering system control subsystem (STR).

8. The vehicle integrated control system according to claim 7, wherein said subsystem further comprises an automatic cruise subsystem controlling said vehicle for automatic cruising or pseudo automatic cruising of said vehicle.

9. The vehicle integrated control system according to claim 7, wherein said subsystem further comprises a dynamic stabilization subsystem controlling said vehicle so as to stabilize a behavior state of said vehicle.

10. (Amended) An integrated control system for vehicle control, comprising at least three subsystems (PT, ECB, STR) operating autonomously and in parallel, dispensable of a hierarchical system for a level higher than said subsystem, wherein said subsystem (PT, ECB, STR) comprises sensing means for sensing information related to an operation request with respect to at least one of said subsystems (PT, ECB, STR), connection means for connection with another subsystem other than its own subsystem, and generation means for generating information related to an individual control target of its own subsystem based on said sensed information related to an operation request.

11. The vehicle integrated control system according to claim 10, wherein said generation means includes arbitration means for arbitrating a plurality of information to generate information related to an individual control target of its own subsystem, based on said sensed information related to an operation request.

12. (Amended) An integrated control system for vehicle control, comprising at least three subsystems (PT, ECB, STR) operating autonomously and in parallel, dispensable of a hierarchical system for a level higher than said subsystem, wherein said subsystem (PT, ECB, STR) comprises sensing means for sensing information related to an operation request with respect to at least one of said subsystems (PT, ECB, STR), connection means for connection with another system other than its own subsystem, and arbitration means for arbitrating a plurality of information to generate information related to an individual control target of its own subsystem, based on said

sensed information related to an operation request,

said arbitration means in said subsystem being connected between each of said subsystem, and

when arbitration information arbitrated at each said subsystem is transmitted to the arbitration unit of another subsystem, control is executed at said another subsystem based on said transmitted arbitration information.

13. The vehicle integrated control system according to claim 11 or 12, wherein said arbitration means includes means for determining priority of information.

14. The vehicle integrated control system according to claim 11 or 12, wherein said arbitration means includes means for correcting information.

15. The vehicle integrated control system according to claim 11 or 12, wherein said arbitration means includes means for processing information.

16. The vehicle integrated control system according to any of claims 10-12, wherein said subsystem comprises a driving system control subsystem (PT), a brake system control subsystem (ECB), and a steering system control subsystem (STR).

17. The vehicle integrated control system according to claim 16, wherein said subsystem further comprises an automatic cruise subsystem controlling said vehicle for automatic cruising or pseudo automatic cruising of said vehicle.

18. The vehicle integrated control system according to claim 16, wherein said subsystem further comprises a dynamic stabilization subsystem controlling said vehicle so as to stabilize a behavior state of said vehicle.